

## Claims

1. A method for producing cyclic polyether compounds, comprising the cross-coupling reaction of alkylborane and cyclicketene acetal phosphate in the presence of a basic aqueous solution using palladium [1,1'-bis(diphenylphosphino) ferrocene] chloride as a catalyst.

2. The method for producing cyclic polyether compounds of claim 1, wherein a starting material for alkylborane and a reagent used for producing alkylborane are added to the reaction system prior to the cross-coupling reaction, thereby producing the alkylborane *in situ*, which is then reacted with cyclicketene acetal phosphate in the presence of a basic aqueous solution using palladium [1,1'-bis(diphenylphosphino) ferrocene] chloride as a catalyst

*SJH*  
3. The method for producing cyclic polyether compounds of claim 1 or 2, wherein the alkylborane is obtained by the hydroboration of exo-olefin with 9-BBN.

4. The method for producing cyclic polyether compounds of claims 1, 2 or 3, wherein the basic aqueous solution is an aqueous solution of NaHCO<sub>3</sub>.

5. The method for producing cyclic polyether compounds of claims 1, 2, 3 or 4, wherein 1 to 2 equivalents of cyclic ketene acetal phosphate are added to 1 equivalent of alkylborane.

*WILL B2*